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Sequence Listing was accepted.
If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).
Reviewer: Keisha Douglas
Timestamp: [year=2008; month=11; day=21; hr=10; min=30; sec=57; ms=730;
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Validated By CRFValidator v 1.0.3

Application No: 10573989   Version No: 2.0

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        Total Warnings:    20
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   No. of SeqIDs Defined:  22
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Error code   Error Description

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      FOR NEURODEGENERATIVE DISEASES

<130> 060307us Me/FM

<140> 10573989
<141> 2006-03-30

<150> PCT/EP2004/052353
<151> 2004-09-29

<160> 22

<170> PatentIn Ver. 2.1

<210> 1
<211> 284
<212> PRT
<213> Homo sapiens

<400> 1

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Ser Lys Tyr Phe Glu Phe His Gly Val Arg Leu Pro Pro Phe Cys Arg
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Gly Lys Met Glu Glu Ile Ala Asn Phe Pro Val Arg Pro Ser Asp Val
           35                  40                  45

Trp Ile Val Thr Tyr Pro Lys Ser Gly Thr Ser Leu Leu Gln Glu Val
       50                  55                  60

Val Tyr Leu Val Ser Gln Gly Ala Asp Pro Asp Glu Ile Gly Leu Met
 65                  70                  75                  80

Asn Ile Asp Glu Gln Leu Pro Val Leu Glu Tyr Pro Gln Pro Gly Leu
                   85                  90                  95

Asp Ile Ile Lys Glu Leu Thr Ser Pro Arg Leu Ile Lys Ser His Leu
               100                 105                 110

Pro Tyr Arg Phe Leu Pro Ser Asp Leu His Asn Gly Asp Ser Lys Val
           115                 120                 125

Ile Tyr Met Ala Arg Asn Pro Lys Asp Leu Val Val Ser Tyr Tyr Gln
       130                 135                 140

Phe His Arg Ser Leu Arg Thr Met Ser Tyr Arg Gly Thr Phe Gln Glu
145                 150                 155                 160

Phe Cys Arg Arg Phe Met Asn Asp Lys Leu Gly Tyr Gly Ser Trp Phe
                   165                 170                 175
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Glu His Val Gln Glu Phe Trp Glu His Arg Met Asp Ser Asn Val Leu
        180   185   190

Phe Leu Lys Tyr Glu Asp Met His Arg Asp Leu Val Thr Met Val Glu
        195   200   205

Gln Leu Ala Arg Phe Leu Gly Val Ser Cys Asp Lys Ala Gln Leu Glu
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Ala Leu Thr Glu His Cys His Gln Leu Val Asp Gln Cys Cys Asn Ala
225   230   235   240

Glu Ala Leu Pro Val Gly Arg Gly Arg Val Gly Leu Trp Lys Asp Ile
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Phe Thr Val Ser Met Asn Glu Lys Phe Asp Leu Val Tyr Lys Gln Lys
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<211> 171
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<213> Homo sapiens

<400> 2
Met Ala Glu Ser Glu Ala Glu Thr Pro Ser Thr Pro Gly Glu Phe Glu
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Ser Lys Tyr Phe Glu Phe His Gly Val Arg Leu Pro Pro Phe Cys Arg
                20   25   30

Gly Lys Met Glu Glu Ile Ala Asn Phe Pro Val Arg Pro Ser Asp Val
        35   40   45

Trp Ile Val Thr Tyr Pro Lys Ser Val Gly Tyr Gly Ser Trp Phe Glu
    50   55   60

His Val Gln Glu Phe Trp Glu His Arg Met Asp Ser Asn Val Leu Phe
65   70   75   80

Leu Lys Tyr Glu Asp Met His Arg Asp Leu Val Thr Met Val Glu Gln
                85   90   95

Leu Ala Arg Phe Leu Gly Val Ser Cys Asp Lys Ala Gln Leu Glu Ala
        100   105   110

Leu Thr Glu His Cys His Gln Leu Val Asp Gln Cys Cys Asn Ala Glu
        115   120   125

Ala Leu Pro Val Gly Arg Gly Arg Val Gly Leu Trp Lys Asp Ile Phe
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Thr Val Ser Met Asn Glu Lys Phe Asp Leu Val Tyr Lys Gln Lys Met

Gly Lys Cys Asp Leu Thr Phe Asp Phe Tyr Leu
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<210> 3
<211> 2419
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:nucleotide
      sequence of human SULT4A1 cDNA, splice variant 1

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accgaggcac ctttcaagaa ttctgccgga ggtttatgaa tgataagctg ggctacggct 540
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agaacagagg atgagttggg tctgttgggg ggaatctgga cacttgttta ttctgacgga 1440
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aaaaaaaaaa aaaaaaaaa   2419

<210> 4
<211> 2080
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:nucleotide
      sequence of human SULT4A1 cDNA, splice variant 2

<400> 4
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agttcgagag caagtacttc gagttccatg gcgtgcggct gccgcccttc tgccgcggga 120
agatggagga gatcgccaac ttcccggtgc ggcccagcga cgtgtggatc gtcacctacc 180
ccaagtccgt gggctacggc tcctggtttg agcacgtgca ggagttctgg gagcaccgca 240
tggactcgaa cgtgcttttt ctcaagtatg aagacatgca tcgggacctg gtgacgatgg 300
tggagcagct ggccagattc ctggggggtgt cctgtgacaa ggcccagctg gaagccctga 360
cggagcactg ccaccagctg gtggaccagt gctgcaacgc tgaggccctg cccgtgggcc 420
gggaagagt tgggctgtgg aaggacatct tcaccgtctc catgaatgag aagtttgact 480
tggtgtataa acagaagatg ggaaagtgtg acctcacgtt tgactttat ttataataac 540
agaaacaaca acctgcatgc tcacaatacc cagacagtct actagccaaa agtcctgtat 600
gcattcattt attccttgct ggacaaactc tggaagcagc gtgtgaaaca gcggggggaag 660
ggaagagcgg cgtgagcgga gggagtgtga tgattcccaa ccgaagcagc tgtctcgcct 720
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gcctggaccg taaggataaa gcctgtaata tatgcaacta gaatgtctgc cttttcaacc 840
ccgtattatt gtattttata gagcttttca ctggaaatct acataaatgt cagtaaacca 900
aataaaagtt catttccaag gggaatcagg agcgagccac acccgaatgg tagaaagatc 960
tcagggttaa ctctttattt ttgtagtttt attatctaag gcacagccat tctgttctca 1020
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aagtgatagc ctactaatgc tggcaagcag atgcttaata gtaaatttct aaaatccccg 1440
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cctcatccct ccgtgtatct gagggagtaa aggtgaggtc tttattgctt cactgcctaa 1620
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tcgcatggtg ggctcggcag caccttgcct gtgtttctgt gagggaggct gctttctgtg 1920
aaatttcatt tatatttttc tattttttagt actgtatgga tgttactgag cactacacat 1980
gatccttctg tgcttgcttg catctttaat aaagacatgt cccggcgtt gcaaaaaaaa 2040
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2080

<210> 5
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:nucleotide
      sequence of human SULT4A1 cDNA fragment

<400> 5
gattgcatct ttaataaaga catgttcccg gc   32

<210> 6
<211> 855
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:coding sequence
     of the human SULT4A1 gene

<400> 6
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gagttccatg gcgtgcggct gccgcccttc tgccgcgggga agatggagga gatcgccaac 120
ttcccggtgc ggcccagcga cgtgtggatc gtcacctacc ccaagtccgg caccagcttg 180
ctgcaggagg tggtctactt ggtgagccag ggcgctgacc ccgatgagat cggcttgatg 240
aacatcgacg agcagctccc ggtcctggag tacccacagc cgggcctgga catcatcaag 300
gaactgacct ctccccgcct catcaagagc cacctgccct accgctttct gccctctgac 360
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tcttattatc agttccaccg ctctctgcgg accatgagct accgaggcac ctttcaagaa 480
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gagttctggg agcaccgcat ggactcgaac gtgcttttc tcaagtatga agacatgcat 600
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gcccagctgg aagccctgac ggagcactgc caccagctgg tggaccagtg ctgcaacgct 720
gaggccctgc ccgtgggccg gggaagagtt gggctgtgga aggacatctt caccgtctcc 780
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gacttttatt tataa   855

<210> 7
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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     human SULT4A1 splice variant 1 and splice variant
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<400> 7
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<210> 8
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer for the
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     2 gene

<400> 8

ccgtttcaaa tacagcacca ag   22

<210> 9
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer for the
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<400> 9
ctgaccccga tgagatcg   18

<210> 10
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer for the
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<400> 10
ggcaggtggc tcttgatga   19

<210> 11
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
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      human SULT4A1 splice variant 2 gene

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tcacctaccc caagtccgt   19

<210> 12
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<220>
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<210> 13
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<212> DNA
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<220>
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<210> 14
<211> 19
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<220>
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<400> 14
agccgttggt gtctttgcc   19

<210> 15
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<213> Artificial Sequence

<220>
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<210> 17
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer for the

human beta actin gene

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tggaacggtg aaggtgaca   19

<210> 18
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<220>
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ggcaagggac ttcctgtaa   19

<210> 19
<211> 20
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<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
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cgtcatgggt gtgaaccatg   20

<210> 20
<211> 21
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<213> Artificial Sequence

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<210> 21
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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer for the
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<210> 22
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer for the
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